Space Transportation to Meet NASA's Needs

Moderator: **Row Rogacki**
Director, NASA Space Technology Theme

Panelists: **Jim Snoddy, DART Project Manager**
Orbital Space Plane Program Office

Steve Cook, Deputy Manager
Next Generation Launch Technology Program

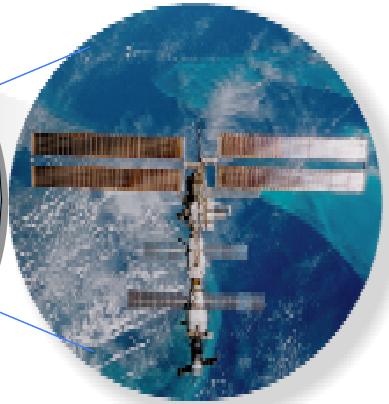
Ray Taylor, Chief Systems Engineer
Project Prometheus

Don Brownlee, Director, Washington Operations
Aerojet

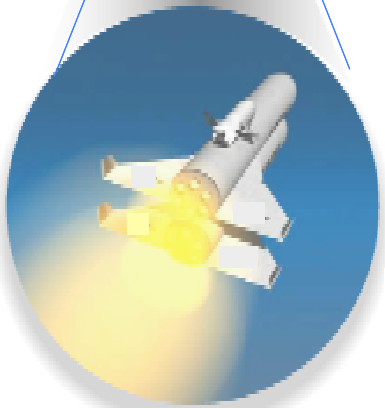
Tight Coupling Among Research, Station, Shuttle & SLI

Space Shuttle

Space Station



Enable Humans to Support Breakthrough Research in Space

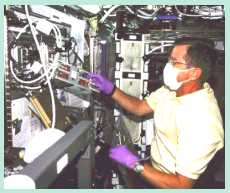


Space Launch Initiative

Programs Addressed by FY 2003 Budget Amendment

INTERNATIONAL SPACE STATION

SPACE STATION PROGRAM



BIOLOGICAL & PHYSICAL RESEARCH

FY 2003 Budget Amendment

$6.6B Fully Funds Cost Estimate

$90M Positions Development Beyond Core Complete

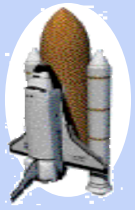
$1.8B Supports Research on Station

Adds Fifth Launch/Yr **$15.2B**

Extends Shuttle Life into Next Decade **$1.6B**

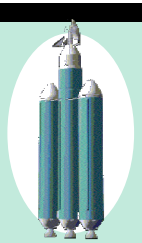
Pursues Crew Return and Transfer **$2.4B**

Develops Critical New Technologies **$2.4B**



Operations

Life Extension Program



Orbital Space Plane

Next Generation Launch Technology

SPACE SHUTTLE

SPACE LAUNCH INITIATIVE

INTEGRATED SPACE TRANSPORTATION PLAN

Update: 10/24/02

New Integrated Space Transportation Plan

02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22

International Space Station

US Core Complete

IP Core Complete

ISS Extend?

Future Exploration beyond LEO?

Space Shuttle

Competition Decisions

Operate Thru Mid Next Decade

Extend?

Extend Until 2020+

Further Extend as Crew and/or Cargo Vehicle?

Orbital Space Plane

Design

Orbital Tech Demo

FSD Decision

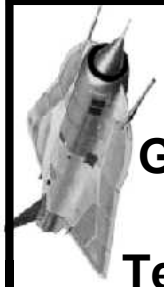
Development

ISS Crew Return Capable

Crew Transfer on Human-Rated EELV

OSP Primary Crew Vehicle?

Operations



Next Generation Launch Technology

Tech

Long-Term Technology Program

Launch System Decision (Based on Reqt, $, DoD)

Risk Reduction

FSD Decision

1st Flight

OSP Bridge To New Launcher

Hypersonic FSD?

Development

Operations

Space Launch Initiative

Theme Objectives

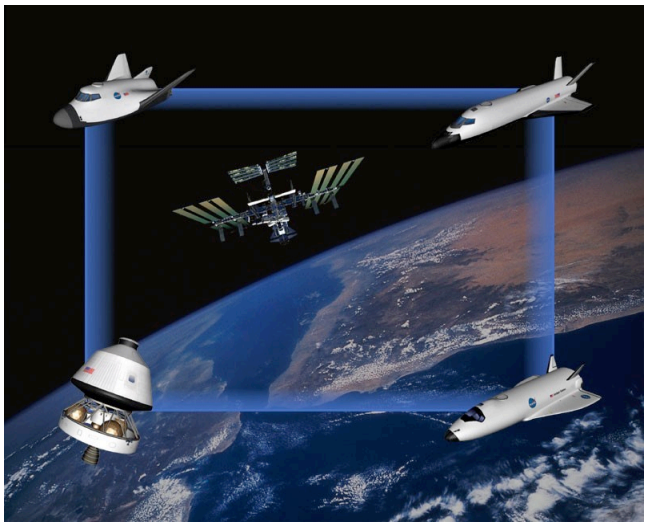
Assure Access & Return from ISS

Improve Space Transportation Safety, Reliability, Affordability

Enhance the Nation's Security

Create Innovative Approaches

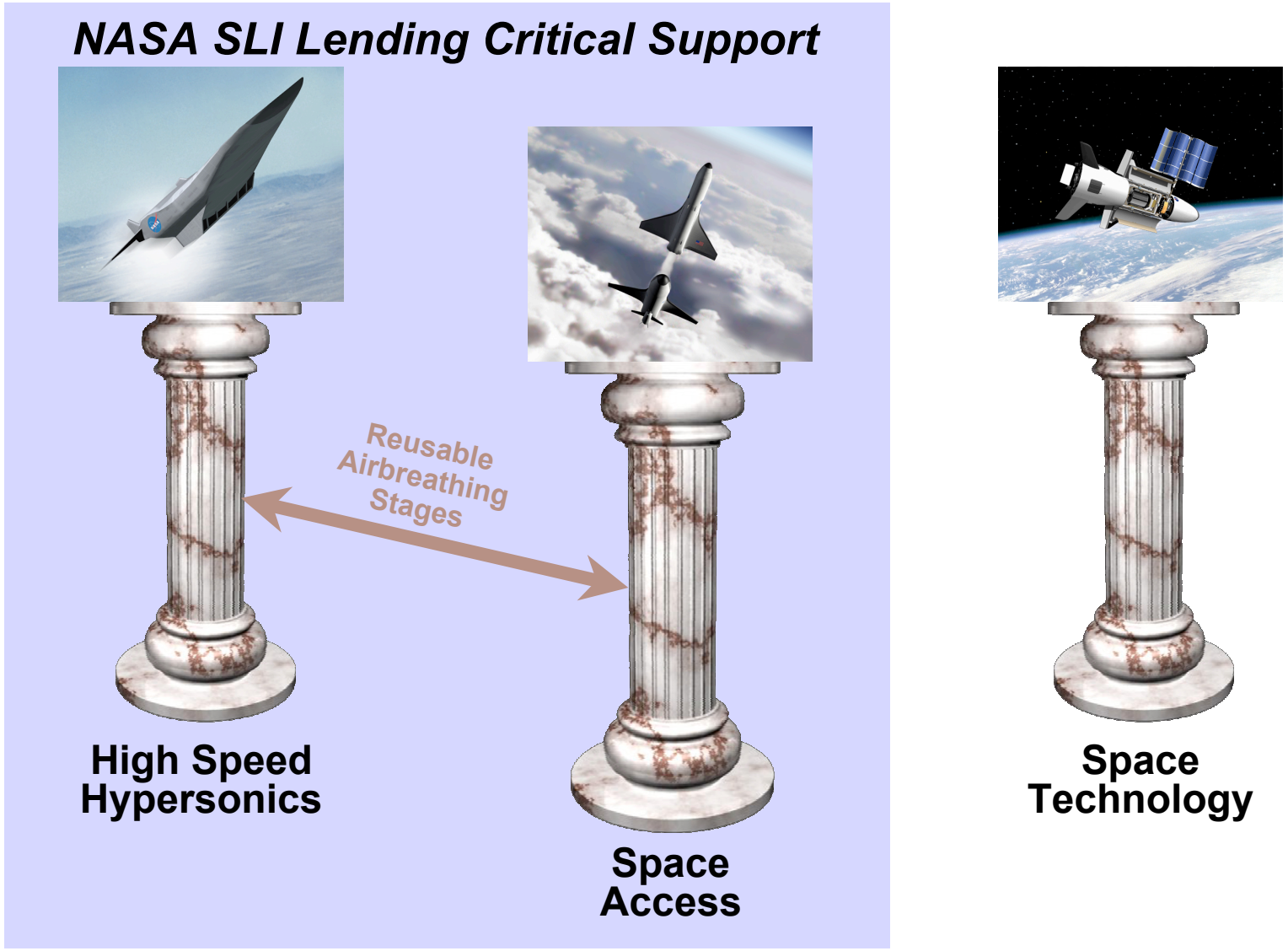
Programs



Orbital Space Plane

Next Generation Launch Technology

National Aerospace Initiative



Twenty-five Year National Technology Plan to Mature Key Technologies for NASA and Department of Defense Needs